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September 14, 2006

Ms. Bonita Lavelle
U.S. Environmental Protection Agency
Office of Ecosystems Protection and Remediation
Mail Code 8EPR-SR
999 18th Street, Suite 300
Denver, Colorado 80202-2466



RE: July 2006 Fact Sheet Response From EPA

Dear Ms. Lavelle:

CLLEAN would like to thank the U.S. EPA for their response to our comments made regarding the July 2006 fact sheet. CLLEAN would like to provide follow up comments for review by U.S. EPA, other agencies involved in the Lowery Landfill Superfund Site, and please enter in to the Lowery Landfill Site record.

Due to the recently determined occurrence of 1,4-dioxane in groundwater north of the site boundary, additional fact sheets and updates are expected to keep the public informed. These will provide opportunities to release updated versions of the fact sheet that include our suggestions. The items below are presented to match the August 23, 2006 response from Bonnie Lavelle, U.S. EPA:

1. CLLEAN is sure that EPA wishes to provide fact sheets that are as accurate and clear as possible. Subsequently, we suggested that the sentence in question be deleted. As the references provided indicate, it is technically incorrect in any context. The previous text does however make the important point that 1,4-dioxane was not considered an issue by U.S. EPA Region 8 prior to the current efforts and we believe that correcting the paragraph, by deleting this sentence, will not distract from this important point.
2. CLLEAN would hope that U.S. EPA will reflect on the response to this comment and make one very important correction. The U.S. EPA response states that "all reviewers came to consensus that installation of groundwater monitoring wells is the highest priority.....information collected from these new wells would be considered....in determining if additional surface water samples need to be collected". This is simply incorrect. CLLEAN is one of the reviewers of those plans and again we are restating that surface water sampling should be concurrent to monitoring well installation and groundwater sampling. This is within the capability

of the responsible parties at the site; they are currently conducting significantly larger and more complicated operations at the same site.

It should be pointed out that the current effort has been extended to include those very areas in question after elevated 1,4-dioxane levels were found in the new wells. As you may recall, CLLEAN comments indicated that this was needed; additional monitoring wells in the area of the contaminated surface water, in comments on draft work plans in July. Failure to respond to these practical suggestions has resulted in delays in assessing this important off-site contamination issue. In other words, comment 3 from the CLLEAN letter dated July 14, 2006;

Provide a more extensive groundwater monitoring program north of the proposed area. The data from Murphy Creek already indicates that it is likely part of the 1,4-dioxane plume in the area and that it likely extends significantly north of the proposed wells.

was not addressed and now this very area is incorporated into the current, second work plan due to elevated levels in the wells that were placed. It is our fear that the surface water sampling will fall in the same category. Useful information about surface water concentrations requires multiple samples collected over an extended period of time. The faster this sampling begins, the sooner we can address this important problem.

3. The response provided does not appear to be consistent with our comment. As we indicated in the comment, this section does initially follow sections of the ATSDR ToxFAQs listing for 1,4-dioxane regarding the presence of 1,4-dioxane in consumer products (“most manufacturers now reduce 1,4-dioxane from these chemicals to low levels before they are made into products for household use”) but adds in the very next section “1,4-dioxane may also be found in cosmetics, detergents, and shampoos that contain the ingredients”. For effective risk communication, it is important to present the relevant information as well as historical context, but the second comment is counter to the ATSDR quote and can confuse the reader. Indicating that breathing air, drinking water, or eating foods *contaminated* with 1,4-dioxane are exposure pathways is appropriate, but the additional text regarding consumer products may inappropriately detract from drinking water and other important exposure pathways. It is recommended to remove the *additional* text on 1,4-dioxane in consumer product or rephrase it to be more consistent with the earlier statement quoted above.
4. Similar to the item above, the statement regarding the health risk discussion also needs to be consistent and follow a brief, understandable and informative presentation; elements key to successful risk communication. The range of values is applicable when a range of situations is discussed; however the fact sheet is limiting this discussion to a single site. Therefore, a single value is used in that discussion for groundwater off of the site, 6.1 µg/L and again, it is the most appropriate. The further discussion can include reference to other sites where higher values are considered appropriate to low utilization and limited exposure pathways. In addition, the

translation to actual cancer risk can provide useful keys to understanding, but is confusing when followed by statements that higher levels are acceptable.

Information starting in the second sentence in the second paragraph under “Health Effects of 1,4-Dioxane” also follows this confusing trend by presenting what may be misplaced data from area wells. This information is appropriate for the fact sheet, but to present it under this heading is inappropriate and confusing. It would make more sense to include groundwater monitoring data under “Groundwater Monitoring”.

5. It is appreciated that the error regarding detection levels is acknowledged. However, it is still recommended to address the issue by simply removing the phrase “because that was the lowest level laboratories were able to detect and a level that EPA considers protective of human health and the environment” in future fact sheets. This type of discussion, even corrected, does not add to the quality of the fact sheet in this context.
6. There does appear to be some confusion with this comment and other regarding the need for surface water sampling. Groundwater sampling in the area north of the site is, of course, critical to assessment. However, citizens have voiced their concern regarding surface water. As CLLEAN has previously indicated to Ms Lavelle, the concentrations, although exceeding the site and Colorado 6.1 µg/L standard, may not pose an immediate threat. However, it is the nature of surface water sampling to provide highly variable values and require more than just a single grab sample for appropriate assessment. The basic fact of the situation is that concentrations of 1,4-dioxane were found to be significant (above 6.1 µg/L) and groundwater concentrations indicate the Lowery Landfill site as a potential source. Adding to this, the relatively low effort required and public concern should more than warrant continued surface water sampling. Waiting to collect this data can result in persistent questions as to the actual exposure to the residents and the source of 1,4-dioxane in the surface water.

It is appreciated that the response to this comment now indicates that further discussions of surface water sampling are expected, but further delay will only server to frustrate residents who perceive this as a simple request.

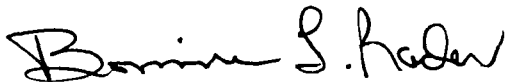
7. As the response to the comment indicates, multiple theories still abound regarding the presence of 1,4-dioxane north of the site. As indicated in the CLLEAN comment, these questions do not add to the fact sheet and can result in some confusion. It is more appropriate to provide effective risk communication by presenting the facts in as brief and plain language as possible. Presenting the theories based on limited data at best does not meet this criteria. If U.S. EPA insists on presenting options for the source it should include the fact that failure of containment cannot be dismissed at this time or simply limit the section to stating that the presence of 1,4-dioxane in the area is related to the site and could be due to a variety of factors currently under investigation.

Overall, CLLEAN is requesting clarification and correction of the fact sheet to provide the most effective risk communication possible. It should be noted that most of the comments can be addressed by simply eliminating the vague or disputed text.

At this time we would like to request that EPA revise the fact sheet and provide the new version as part of the regular public updates to area residents. The current assessment at the north end of the site will provide one or more opportunities for this over the next few months.

CLLEAN has contacted CDPHE regarding their comments on the fact sheet. Contrary to comments made during the May 2006 meeting, it appears that CDPHE may have provided comments. We would like to request a copy of those comments and any response by U.S. EPA to those comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Bonnie L. Rader". The signature is fluid and cursive, with the first name "Bonnie" being more prominent than the last name "Rader".

Bonnie L. Rader, Director CLLEAN

Cc: Angus Campbell, CDPHE